

V. THE EASTERN AMERICAN OCCURRENCE OF
ATHYRIUM ALPESTRE

(Plates 161-168)

IN 1917 Dr. F. K. Butters pointed out¹ that the plants which had long passed in America as *Athyrium alpestre* (Hoppe) Rylands or as *Phegopteris alpestris* (Hoppe) Mett. differ from the Eurasian type and he called our plant *A. alpestre*, var. *americanum*; and a year later Maxon, emphasizing, besides the characters noted by Butters, some habital points of the plant of western North America, elevated it to specific rank as *A. americanum* (Butters) Maxon² and designated as the type (which Butters had neglected to do) a plant from the Selkirk Mountains. Still later, Christensen, who certainly knows the Eurasian plant, after discussing the Eurasian range of *A. alpestre* said: "In America the closely allied form *A. alpestre americanum* Butters."³ The treatments recently published give us, then, the choice of calling the American plant either *A. alpestre*, an endemic American variety, an endemic American species or a "closely allied form," and it is with the hope of throwing some clearing light upon the dilemma that the present notes and the accompanying photographs are presented.

In eastern America *Athyrium alpestre* or its representatives are as yet known from only two regions: the gulches of Bard Harbor Hill, one of the Highlands of St. John, in northwestern Newfoundland, and the northern and northeastern slopes of the Table-top Range in Gaspé County, Quebec. On my four different visits to these areas I have during the first days studied the plants with enthusiasm and have put up, altogether, hundreds of sheets of specimens; but in each case, the plants soon proving to be abundant, my enthusiasm for them has gradually waned. The plant of Gaspé had been included by Butters and by Maxon with the cordilleran var. *americanum* or *A. americanum*; consequently, when the Newfoundland material was labeled it was assumed to be the same and it was later recorded⁴ without question as var. *americanum*. Comparison now shows, however, that the Newfoundland and Gaspé plants are not quite identical, nor are either of them satisfactorily placed with the cordilleran plant. The plant of Eurasia has decidedly "leafy" fronds,

¹ Butters, RHODORA, xix. 204 (1917).

² Maxon, Am. Fern. Journ. viii. 120 (1918).

³ C. Christens. in Hultén, Fl. Kamtch. and Adj. Isl. i. 40 (1927).

⁴ Fernald, RHODORA, xxviii. 117, 148 (1926).



Phegopteris alpestris Fee
 Wooded slope
 Murren, Switzerland
 8/8-04 5300 ft
 R. G. Ware



FROM THE HERBARIUM OF GEORGE EDWARD DAVENPORT
 GIFT TO THE UNIV. OF MICHIGAN, ANN ARBOR, MICH.
 BY HIS DAUGHTER, MARY EDWARDS DAVENPORT

ATHYRIUM ALPESTRE FROM SWITZERLAND, $\times \frac{1}{3}$



ATHYRIUM ALPESTRE FROM ICELAND, $\times \frac{1}{3}$



ATHYRIUM ALPESTRE, VAR. AMERICANUM FROM CALIFORNIA, X 1/3



Athyrium alpestre (Hopps) Ryland,
var. *americanum* Britton

Boreal Flora of the Sierra Nevada
CALIFORNIA

No. 810

Phegopteris alpestris Mett.
East slope Unicorn Peak,
above Tuolumne Meadows,
Altitude 10100 Yosemite
Lake area Arctic-alpine
S. J. SMILEY DATE Aug. 15 1916



ATHYRIUM ALPESTRE, VAR. AMERICANUM FROM CALIFORNIA, X 1/3



ATHYRIUM ALPESTRE FROM NEWFOUNDLAND, $\times \frac{1}{3}$